

REMARKS

As an initial matter, the Applicants would like to thank the Examiner for indicating allowable subject matter in claims 1, 3, 4, 6, 8, 9, 11-14, 17 and 20.

Claims 1, 3-6 and 8-20 remain pending in the application. Reconsideration of the rejection and allowance of the pending application in view of the following remarks are respectfully requested.

In the Office Action of December 17, 2004, the Examiner rejected claims 5, 10, 15, 16, 18 and 19 under 35 U.S.C. §103(a) as being unpatentable over Minde et al. (U.S. Patent No. 5,991,717) in view of Ozawa (U.S. Patent No. 5,963,896). Applicants traverse this rejection for the following reasons.

Claims 5, 10 and 18 recite an apparatus for performing speech coding in a CELP system which comprises, inter alia, a stochastic codebook in which a plurality of excitation vectors are stored. The claims also recite that the stochastic codebook comprises a first subcodebook in which excitation vectors composed of a small number of pulses are stored, and a second subcodebook in which excitation vectors composed of a large number of pulses are stored. Claim 15 recites a method including similar features.

In rejecting claims 5, 10, 15 and 18, the Examiner asserted, without any further explanation, that Minde teaches the aforementioned stochastic codebook, citing col. 7, lines 3-12. However, this passage of the disclosure discloses only that the invention relates to a mixed excitation using a few multi-pulses and a TBPE code book. There is no mention, or even any suggestion, of a first subcodebook in which excitation vectors composed of a small number of pulses are stored, and a second subcodebook in which

excitation vectors composed of a large number of pulses are stored.

Applicants' counsel pointed out the absence of these explicitly recited features in the Minde reference to the Examiner in an interview on July 1, 2004. Applicants also repeated this argument in the Amendment filed November 2, 2004.

In the Office Action which followed (the Office Action of December 17, 2004) the Examiner failed to address Applicants' argument regarding the stochastic codebook in any detail. The Examiner simply responded to Applicants' argument with the statement that "[t]he Examiner disagrees and argues Minde was cited as disclosing an adaptive codebook in which previously synthesized excitation signals are stored in addition to a stochastic codebook having a first subcodebook in which excitation vectors composed of a small number of pulses are stored and a second subcodebook in which excitation vectors composed of a large number of pulses are stored," without any further explanation or clarification of her position. See paragraph 5 on page 4 of the Office Action.

Accordingly, Applicants respectfully request the Examiner to particularly specify which elements of Minde's invention she believes read on Applicants' claimed first subcodebook in which excitation vectors composed of a small number of pulses are stored, and second subcodebook in which excitation vectors composed of a large number of pulses are stored, or else withdraw the rejection and allow the respective claims.

Furthermore, claims 5, 10, 15 and 18 also recite that the apparatus comprises an instructor that selects one of the first and second subcodebooks corresponding to a distance between pulses of the excitation vectors in the first subcodebook, and a switch

that switches between outputs of the first and second subcodebooks according to the selection by the instructor.

The Examiner has not alleged that Minde teaches these features. Instead, the Examiner relies on Ozawa. In the Office Action, the Examiner states that Ozawa teaches “a hybrid switched multi-pulse/stochastic speech coding technique” and teaches that “it is possible to obtain positions of any number of pulses with gain variations and to switch codebook circuits or gain codebooks using mode data.” However, Ozawa does not teach that the switching occurs according to a distance between pulses of the excitation vectors in the first subcodebook, as recited in the claims.

Ozawa discloses that first and second excitation quantizers are switched to obtain pulse positions according to a judged mode. See col. 16, lines 13-17. A judging circuit 900 judges the mode according to a feature quantity of a present frame. See col. 14, lines 47 – col. 15, line 23. However, Ozawa’s apparatus judges the mode based only upon the features of a present frame, without any consideration of a distance between pulses of excitation vectors in a first subcodebook. Therefore, Ozawa does not teach an instructor that selects one of first and second subcodebooks corresponding to a distance between pulses of the excitation vectors in the first subcodebook, and a switch that switches between outputs of the first and second subcodebooks according to the selection by the instructor. Therefore, Ozawa does not cure the deficiencies of the Minde reference with respect to the claimed subject matter.

For at least the above reasons, Applicants submit that the Examiner’s rejection is improper, and request reconsideration and withdrawal thereof. Dependent claims 16 and

19 are also submitted to be in condition for allowance at least in view of their dependence on claims 15 and 18.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

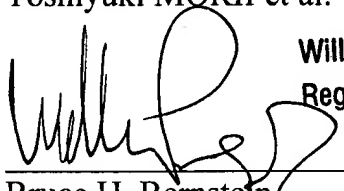
SUMMARY AND CONCLUSION

Consideration of the present remarks, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicants have made a sincere effort to place the present invention in condition for allowance and believe that they have now done so. Applicants have pointed out the shortcomings of the references cited by the Examiner with respect to the claimed subject matter, and respectfully request the Examiner to refer to the specific portions of the cited references she believes to meet the noted shortcomings.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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March 10, 2005
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